

ROUTERmate™ T1 Drop and Insert CSU/DSU Easy Install Checklist

918-6246E/3

Use this checklist to install and test the Routermate T1 Drop and Insert CSU/DSU. For reference and additional information, see [Routermate T1 Drop and Insert CSU/DSU Installation and Operation](#) (918-6246). If you have any questions during installation, contact Osicom Technologies' Customer Service at (800) 359-2273.

☐ Line Configured

When ordering a T-1 line, specify to the carrier how you want the line configured.

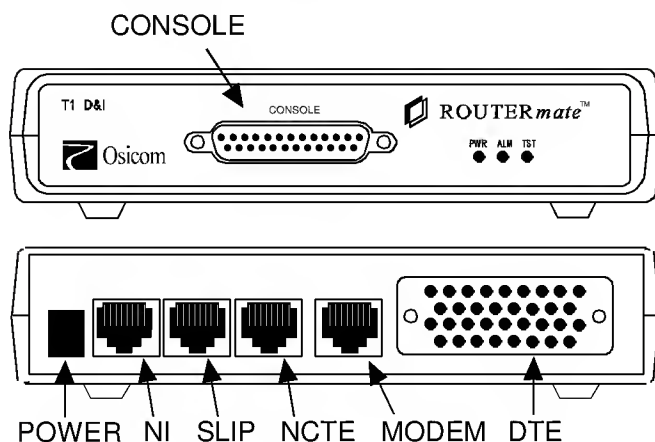
DS0s: With a T-1 line, the number of DS0s is 24. With a fractional T-1 line, you must tell the carrier how many DS0s are to be assigned to the NCTE interface and how many are to be assigned to the V.35 interface (the number of DS0s is determined by the data rate you select for the V.35 interface (see [manual section 3.8, V.35 Configuration](#)); for convenience, as each data rate is displayed at the V.35 Configuration screen, the number of required DS0s is also displayed). Using the numbers you provide, the carrier must then assign DS0 numbers and tell you which specific DS0 numbers are to be used with the V.35 interface and which are to be used with the NCTE interface.

Clear Channel: If clear channel operation is desired, request B8ZS coding. See [manual section 3.7, System Configuration](#).

Frame Format: When the order is filled, the carrier should inform the customer whether the line framing format is D4 or ESF. If ESF, the carrier should also specify whether the data link protocol complies with the AT&T TR-54016 standard or with ANSI T1.403

☐ Hardware Configured

A wall-mount transformer, a network interface (NI) cable (DCA94511), and an NCTE adapter cable (115-0611-01) are included with the unit. The console cable is a straight-through cable with a DB25-male connector at the Routermate (DCE) end and a connector that matches the terminal interface at the terminal (DTE) end. A standard V.35 cable is also required.



1. Connect the wall-mount transformer to the rear-panel connector labeled **POWER**; then plug the transformer into a grounded AC power receptacle.
2. Use a console cable to attach a PC or serial terminal to the **CONSOLE** interface. The PC or terminal is used for initial software configuration, and can also be used to manage the Routermate.
3. Turn on the terminal and configure the terminal for:
Rate: 9600 bps Stop bits: 1
Mode: full duplex Parity: none
Character: 8 bits Flow control: DC1/DC3 (Xon/Xoff)

☐ Software Configured

Default software settings are shown in brackets ([]).

1. Using the PC or serial terminal, press **[CTRL-N]** to display a list of available terminal types.
2. Select the correct terminal type from the list.
3. Press **[CR]** (the default password) to display the Main Menu.
4. Access the System Configuration screen (see [manual section 3.7, System Configuration](#)).

The following default settings should be left intact:

Timing: [Repeater]
NI Format: [Auto Detect]
NI Coding: [Auto Detect]

NOTE

The recommended settings for the system [timing](#) and [clocking](#) parameters work for most applications; however, applications such as tail circuit or limited distance line driver require different settings. See [manual sections 3.7 and 3.8](#) for information on these options.

The **ESF Data Link** setting of [AT&T TR-54016] or ANSI T1.403 should match the line configuration.

(over)

If the NCTE Drop and Insert interface is used, **NCTE** should be set to *[Enabled]* and the following should match the line configuration:

NCTE Format: *[ESF], D4*

NCTE Coding: *[B8ZS], AMI-62411, AMI-No Den*

5. From the Main Menu, access the V.35 Configuration screen (see [manual section 3.8, V.35 Configuration](#)).

The following default setting should be left intact:

Clocking: *[Int Rxc - Int Txc]*.

Also, set **Data Rate** to the desired data rate for the V.35 interface.

6. From the Main Menu, access the Bandwidth Allocation screen (see [manual section 3.9, Bandwidth Allocation](#)). At this screen, assign DS0s to the NCTE and V.35 interfaces.

Unused DS0s should be set to *Not Used*.

The required number of DS0s for the V.35 interface is determined by the data rate for the V.35 interface. When the correct number of DS0s is allocated, the bandwidth status line at the bottom of the screen indicates that the bandwidth is allocated correctly.

For a fractional T-1 line, the specific DS0 numbers allocated to each interface (V.35 or NCTE) must match the DS0s provisioned by the carrier for the interface.

☐ **Cables Connected**

1. After configuring the software, connect cable DCA94511 from the Routermate's NI connector to the RJ48C Telco jack.
2. After configuring the software, connect a standard V.35 cable from the Routermate's V.35 connector to the V.35 interface on your DTE equipment (router, terminal server or other compatible device).
3. After configuring the software, connect the NCTE cable to the NCTE interface; then connect a standard DB-15 cable from the NCTE cable to the PBX.

☐ **Unit Tested**

After all cables are connected and you have completed the initial software configuration, the Routermate should be able to communicate with the T-1 network. Verify this at the System Diagnostics and Statistics screen:

1. At the Main Menu, select *System Diagnostics*.

2. At the System Diagnostics and Statistics screen, check the status in the Rx (receive) column for the following alarms for the NI interface. If the NCTE Drop and Insert interface is used, also check the Rx column for the NCTE interface. All alarm fields should indicate *No*.

Rx Red Alarm - usually caused by a poor connection to the Telco jack, or by a bad line. Verify that the correct NI cable is installed and is securely connected at each end.

Rx Blue/KA Alarm - a problem with the attached NCTE or NI equipment (normally not seen on the NI interface since the carrier usually does not transmit blue alarms, but could occur in point-to-point NI applications).

Rx Yellow Alarm - the equipment at the opposite end of the line from the interface receiving the yellow alarm is in Red Alarm.

If any of these alarm fields indicates *Yes*, perform, as appropriate, either a Local NI Loop or a Local NCTE Loop test to verify the correct operation of the Routermate.

When the test is set, all of the alarm fields should indicate *No*. If any of them continues to indicate *Yes* after the test is set, this indicates a problem with the unit.

If all the alarm fields indicate *No* when the appropriate (NI or NCTE) test is set, but they indicate *Yes* when the test is cleared, this indicates, respectively, a network or NCTE device problem.

☐ **Management Configured**

If SNMP or Telnet is used to manage the Routermate, access the Management screen and configure the following parameters:

Internet Address and Subnet Mask - Before using SNMP or Telnet management, assign an Internet Protocol (IP) Address and a subnetting mask to the Routermate.

Access via telnet - This option must be set to *[Enabled]* (the default setting) for Telnet operation.

Community Strings - For SNMP management, the community strings must be set to match the strings used by the SNMP management station.

See manual sections [2.6, SLIP Management](#) and [3.15, Management](#), for additional information.